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Docket-File Rm: 222 **POLICY & PLANNING** BRANCH ROOM 5202

IN REPLY REFER TO:

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FEDERAL COMMUNICATIONS COMMISSION

OFFICE OF THE SECRETARY

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Dear Dr. Gambill:

Dr. James Martin Gambill 106 Chappell Street

Sumter, South Carolina 29150

This is in reply to your letter to Senator Duncan Faircloth regarding the Notice of Proposed Rule Making (Notice) in PR Docket No. 92-235,/57 FR 54034 (1992). This Notice proposes comprehensive changes to the Commission's Rules governing the private land mobile radio services operating in the frequency bands below 512 MHz.

You are specifically concerned about the impact of these changes on radio control (R/C) hobby users. Enclosed is a discussion paper concerning our proposals for the 72-76 MHz band. In short, we expect there would be no adverse impact on R/C operations because of any proposal contained in the Notice.

We are, of course, sensitive to the concerns of both users of private land mobile radio spectrum and R/C hobbyists. We will, therefore, take your concerns into account when we develop final rules in this proceeding. As indicated in the Notice, we remain convinced that without significant regulatory change in radio operations in the bands below 512 MHz, the quality of communications in the private land mobile radio services will continue to deteriorate to the point of endangering public safety and the national economy.

We want to thank you for your interest. Your letter will be included in the record of the proceeding. We expect final rules to be issued in 1994.

Sincerely,

Richard J. Shiben

Chief. Land Mobile & Microwave Division

Edward R. Jacob / for

Private Radio Bureau

Enclosure

cc: Chief, PRBureau Chief, IMSMDivision Docket Files, Room 222 P&P Branch File (Pink)

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Subject: Radio Control in the 72-76 MHz band

Question: What is the 72-76 MHz band used for?

Answer: The frequency range between 72-76 MHz is primarily a guard band between TV channels 4 and 5. Specifically, the channels between 72 and 76 MHz are <u>licensed</u> for use by 1) private and common carrier fixed station use at up to 300 watts output power (private and common carrier fixed use occurs on the same channels) and 2) private land mobile use at up to 1 watt output power. The channels between 7° and 76 MHz are also available for <u>unlicensed secondary</u> use by remote control operators of model aircraft, boats and cars at .75 watts output power.

Question: What is the relationship between fixed and mobile land mobile operations and radio control operations?

Answer: Radio control channels are located between fixed and mobile channels. The radio control channels overlap with the fixed and mobile channels. Radio control operations are unlicensed and are secondary to fixed and mobile operations. This means that radio control operations must accept interference from fixed and mobile users, and may not cause interference to such users.

Question: What changes are proposed in PR Docket 92-235 that have raised the concern of radio control operators?

Answer: We have proposed that over a 20 year period, 20 kHz mobile channels in the 72-76 MHz band be replaced with 5 kHz mobile channels. (See the attached page.) Apparently, radio control operators believe that this would make many of their frequencies unusable.

Question: Private land mobile, common carrier, and radio control users have peacefully shared spectrum in this band for many years. Would these changes lead to problems between various classes of users?

Answer: We can not categorically state that authorized mobile operations under the current or proposed rules could never harm radio control operations. However, in practice, all types of users can and do operate without conflict, although there are rare occurrences of interference between these users. We believe that under our proposed rules they should remain rare.

First, permitted power levels for both services are comparable. (For radio purposes, 3/4 of a watt is indistinguishable from 1 watt.) In approximate terms, this means that even if a factory and a radio control hobbyist shared a channel, which they would not under this proposal, the radio control user's model airplane would continue to stay under control as long as the plane is reasonably closer to the hobbyist's radio transmitter than the factory's radio transmitter. The fact that two users would not be using the exact same frequency significantly reduces risk of interference.

Second, the proposed narrowband technical requirements are much stricter than current requirements. Thus, a 2.5 kHz frequency separation between land mobile and radio control users should be adequate given modern radio control equipment and the proposed land mobile equipment.

Third, land mobile operations authorized on the 72-76 MHz band are not car phones. Rather, these channels are used in limited locations such as a factory or construction site, mainly for non-voice operations to monitor or control expensive equipment such as overhead cranes. Model airplane enthusiasts seek clear areas and fields. Thus, the two classes of users rarely notice each other. The proposed technical standards would not change this important fact.

Question: Would the technical rules for the fixed users be changed?

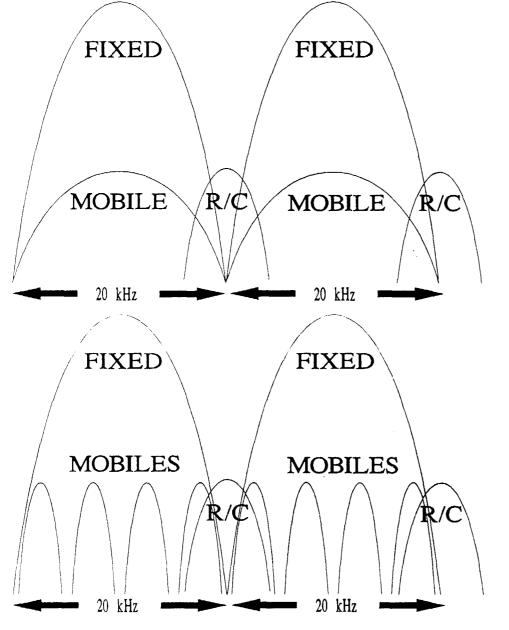
Answer: No. We are not proposing technical changes because such changes could have a significant adverse impact on other users, including mobile users and radio control operators.

Question: Would any changes be required of radio control users?

Answer: No. Current technical and operational requirements for radio control operations are compatible with the proposed changes for private land mobile radio use.

Finally, we recognize that our proposed rules are based on the information available at the time we wrote them. We seek constructive information in order to adopt final rules that meet our objectives of expanding capacity for private land mobile radio users with minimal or no harm to all existing users of the spectrum.

## Channel Splits



Current channels at 72-76 MHz

Proposed channelization